MANAGEMENT AND OPERATIONS

Chapter 4

THE CITY OF ARLINGTON, TEXAS
SKATE PARK MASTER PLAN

4.1 Maintenance Considerations

Maintenance Costs

Typical annual maintenance for concrete skate parks includes graffitti removal (if neccessary) and litter pick-up similar to other structures within the park system. For most skate facilities, a re-painting once a year along with two pressure wash cleanings spaced evenly during the year will be all that is needed to keep a facility functional. These items typically lead to a maintence cost of roughly $0.55 per square foot. For an average community level park, these fees would add up to $6,600-$8,800 per year. Additional maintenance items such as cracking concrete or loose features may need to be addressed throughout the facility life, but typically these costs are minimal and do not require an annual budget.

Annual Maintenance Cost Comparison

Park Amenity	Average Cost
Playgrounds	$5,000
Tennis Courts	$3,000
Outdoor Basketball Courts	$2,000
Soccer Fields	$22,000
Baseball Fields	$35,000
Skateparks (Community Level)	$6,600

Figure 4.1: **Annual Maintenance Cost Comparison**

Drainage

Water can potentially cause serious problems on an outdoor facility. Careful monitoring and maintenance can help avoid some common issues:

- Since small-grated drain covers are often used, a relatively small amount of debris can plug them and create ponding issues. Since this is a common issue in the fall season and after wind-storms, diligent monitoring of drain covers during potential ponding times is recommended.

- Trapped silt and debris in catch-basins should be cleared out regularly, and drain lines should be flushed every two to three years, depending on sediment build-up.

- Although good design and construction methods should avoid them, depressions in the concrete surface may lead to ponding. Most ponding should evaporate at a rate that is acceptable for the use of the facility, but extreme cases may require further attention. Since regular movement of the concrete is to be expected, this will need to be reviewed every spring.

- Weeping occurs when water pressure builds up beneath the concrete surface and pushes through the natural capillaries in the concrete. This may be most noticeable during or after a rainstorm or high-water event, and may be accompanied by a white mineralization. In most cases, installed drainage preparations have been sufficient to resist these issues, or the weeping rate is less than what would affect the use of the facility. A more effective diversion of sub-surface water may be required if weeping is affecting facility use.

Joints, Cracks, and Slabs

Many skate park facilities are built as a 'floating slab' concept which allows for seasonal flexing of the slab from winter heaving and summer settling. This makes it possible to avoid expensive slab engineering and structural preparations, but leaves the potential for cracking to develop over its lifetime. Here is a brief overview of common crack issues:

Crazing: This web-like pattern of tiny micro-cracks, which will usually only be visible if the concrete is wet, are only about one millimeter deep and are caused by surface moisture loss during the scrubbing of the concrete surface during placement. These cracks do not extend through the depth of the concrete, and are not large enough to allow enough moisture penetration to cause problems.

Controlled Cracking: Where saw cuts have been used to allow slab cracking, expect ongoing seasonal shifting of slabs to relieve underlying pressure. This is as practical an application as sidewalk slab movement between cracks, but in a larger application, happens in a more unpredictable manner.

Uncontrolled Cracking: Controlled cracking in the right areas is often impossible to predict or difficult to accommodate for a possible stress point in the concrete and random cracking of the concrete surface may occur. Careful monitoring of these cracks is recommended, and yearly spring 'check-ups' are advised. It is recommended that a flexible joint filler be used in cracks between two to five millimeters wide. Larger cracks or cracking with odd deformation of the concrete surface may require additional review.

Control Joints: Panel joints, pour joints, and joints between different types of concrete are unavoidable, and it is expected that most shifting in the concrete should occur at these locations. It is not uncommon to see regular seasonal differences in the openings at these locations, and regular maintenance and review of these locations is considered part of the regular upkeep of the facility. As with uncontrolled cracking, these gaps should not exceed five millimeters in width without further investigation, and smaller openings can be treated with flexible joint compound.

Surface issues: Concrete slab surfaces should be polished to a smooth finish, but random rough zones and dimples are to be expected. Deterioration of concrete surfaces should be brought to the attention of City Staff.

Steel

The steel edging on skate park applications should be treated with a premium zinc coating and then field treated with "Tremclad" Rust paint. In most cases, it is intended to be scraped by the action of regular skateboarding use, which is somewhat localized to the exposed edge. Since this action will expose the raw steel and make it susceptible to rusting, yearly touch up to exposed steel with rust paint in the spring is recommended.

The use of wax on steel or concrete surfaces is not recommended.Something to keep in mind when steel edging is attached to concrete applications is that steel and concrete expand and contract at different rates with temperature shifts. This may result in gaps that allow moisture entry which can lead to ice jacking of the steel, and should be closely monitored and maintained. As with uncontrolled cracking, a flexible joint filler is an excellent solution for gaps up to five millimeters.

Gaps between concrete and steel coping on quarter pipe elements MUST be sealed before winterizing, as water penetration can lead to potential ice-jacking.

General items

It is common to see the pockmark effect produced by the protruding axles of skateboards at high impact zones such as the landing zones of rails and up-gaps. In most cases, this does not affect the overall usability of these zones, but in extreme cases may require some surface grinding to repair. It is considered normal and part of the regular wear and tear of the facility.

Since bicycles of all types are much larger and heavier than skateboards, skate park installations that allow bicycles should be aware that pedals and pegs have the potential to cause massive damage to concrete and steel regardless of design. Steel and concrete gouging are to be expected and may require maintenance.

In some park designs, the joint between two concrete panels comes to a point and may be exposed to grinding by skateboard axles. This is a deliberate design element, and may result in some minor roughening of this concrete edge. A regular review program should monitor these zones, and flexible joint compound is the best treatment option in most cases.

4.2 Vandalism and Graffiti

To deter vandalism and graffiti in skate park facilities, the development of planning, signage, lighting, volunteers and law enforcement will be necessary. The initial stages of park design is the perfect opportunity to have a discussion about how to limit the amount of vandalism and graffiti in the skate park. This will need to involve the skate park designers, city staff, law enforcement and skateboarders to collaborate to develop strategies.

Clean-up Survey		
Would you be willing to volunteer to keep a skate park clean and safe?		
Answer Options	Response Percent	Response Count
Yes	64.90%	290
No	9.80%	44
Don't know	25.30%	113
answered question		447
skipped question		20

Figure 4.2: **Clean-up Survey**

The development of signage that states the park rules and acceptable behavior in the skate park is imperative. The rules should be simple and straight forward, providing the inclusion of a contact number that the skateboarders can call to report any vandalism and graffiti.

Adding lighting to the skate park will also help to reduce potential vandalism and graffiti. The lighting can run on a timer so that the lights turn off during the day and are on during evening park hours. Once it is time for the park to close, only a few area lights should stay on for visibility and security and not for the ability to skate board all night.

It is strongly recommended that volunteers be recruited to observe the park throughout the day. A park that is empty may attract vandals. The volunteers should mostly be the skateboarders as they will have the most pride about the facility and do not want to see it closed down. The skate park survey supports this with 64.9% in favor of volunteering to keep the park clean and safe.

Parks and recreation staff should work closely with law enforcement to make the skate park part of their daily patrols. The police officers can take a look into the park and make sure no one is using the facility after hours.

4.3 Monitoring and Supervision

Many skate park owners employ monitoring and supervision as tools to help create a safer environment. Liability is the most important consideration when discussing this topic. In most American states, legislation identifies skateboarding as a hazardous activity. "This classification is intended to let participants know that there is an inherent risk in skateboarding similar to most other athletic activities. Limited liability laws and hazardous activity lists prohibit claims against public entities that operate public spaces such as softball fields, basketball courts, and skate parks. This allows municipalities to create positive spaces for recreation without the fear of lawsuits" (Wixon, 2009, p. 152). Once appropriate legislation has been established, skate park owners must determine the extent of monitoring and supervision.

Texas Legislative information

The Texas recreational use statute defines "recreation" to include skating, in-line skating, roller-skating, skateboarding, and roller-blading" but "only if the activities take place on premises owned, operated, or maintained by a governmental unit for the purposes of those activities." In addition, the Texas statue requires the governmental entity to "post and maintain a clearly readable sign in a clearly visible location on or near the premises" which contains the following "warning language":

> Warning: Texas law (chapter 75, civil practice and remedies code) limits the liability of a governmental unit for damages arising directly from hockey, in-line hockey, skating, in-line skating, roller-skating, skateboarding, roller-blading, paintball use, or soap box derby use on premises that the government unit owns, operates, or maintains for that purpose.

Skate park owners have adopted a range of approaches, from fenced-in facilities with full-time attendants to open-access and attendant-free operations. Despite the differences, the need for adult presence and high visibility levels is common to every skate park (Wixon, 2009). The use of formal supervision does increase liability. Formal supervision requires that a skate park be attended to and monitored during operating hours, and that attendants carefully monitor activities and enforce all rules for safety equipment and skate park usage (Wixon, 2009). This approach requires policies and procedures to be followed that are at once enforceable and documentable.

On-site staff may be better prepared to respond to emergencies, and discourage unruly behavior by monitoring users and consistently enforcing rules. Also, on-site staff can deliver programming and private lessons, as well as attend to maintenance problems and other risks immediately. Formal supervision, however, also signifies additional operating expenses.

The other significant consideration when discussing the topic of monitoring and supervision at skate parks is skateboard culture. Many skateboarders consider the act and culture of skateboarding as an alternative to the experience of institutionalized sports. As with the requirement of helmets and pads, the presence of supervision may also dissuade some users from using the facility (Whitley, 2009). Subsequently, if formal supervision is employed, risk of injury increases for some individuals since they will likely skateboard elsewhere and not in the designated skate park.

4.4 Programming

Supervised skate parks allow for a positive adult presence in the immediate vicinity of the park. With unsupervised skate parks, programming can be used to provide an adult presence, which helps to offer a safe and positive environment for all users.

Programs are created with the intention of helping to educate less experienced users and encouraging older experienced skaters to assume leadership roles. Park programming can be as informal as free informational clinics facilitated by park stewards, or as formal as skateboarding lessons and camps incorporating structured coaching and camp activities.

4.5 Establishing Ownership and Mentoring Stewardship

It's best to develop a relationship with the skateboarders in the community. "If children are introduced to skateboarding at a young age through training classes, they will associate skateboarding positively as they grow into teenagers. In addition, if teenagers and young adults are given the opportunity to mentor beginning skaters, they are most likely to take ownership of their community and the sport of skateboarding" (Bradstreet, 2009).

4.6 Etiquette

Skate park etiquette include customary rules of conduct that have developed over decades to help control traffic and add safety to the otherwise unstructured practice of skateboarding in groups. In a skate park environment where many users are often using the same space, these rules become significant for control and mitigation of collisions.

These rules can be learned through formal programming, or trial and error. Understanding these rules beforehand can help prevent collisions and create a safer environment for all users.

Park Etiquette – The freestyle nature of skate parks has led to the need for a simple form of respect and courtesy amongst users. The basic principles allow each user to take turns, be aware of surroundings, avoid cutting people off and be pleasant to fellow users regardless of skill levels. Other courtesies include showing local users respect and avoiding 'one upping' other users. Park etiquette should be practiced regularly and allows for an enjoyable experience.

Padless – It is worth noting that many 'hard-core' users, specifically BMX and skateboarding, wear little or no protective equipment when practicing these sports. Nearly all professional skateboarders and a large portion of BMX professionals never wear a helmet, knee or elbow pads. Young riders have often mimicked these trends and are rarely seen using safety equipment.

4.7 Safety and Injuries

NEISS (National Electronic Injury Surveillance System, a division of the Consumer Product Safety Commission (CPSC), injury statistics for 1998 show the following sports ranked by number of reported injuries per 100,000 participants.

- Basketball - 223.5
- Baseball - 115.7
- Soccer - 62.0
- Skateboarding - 20.2

CPSC Fact Sheet

- 1/3 of all injuries occur in a beginning skater's first week of skateboarding.
- Irregular riding surfaces account for over half of all skateboard injuries (Skate Park Association of the United States (SPAUSA))
- Cites U.S. CPSC study indicating irregular riding surfaces account for 50% of all skateboarding injuries. (Canadian Amateur Skateboarding Association)
- Skateboarding tied for last, at 5%, on a list of Typical Top 10 Canadian Sports Injuries.
- Only 5% of skateboard injuries take place at skate parks.
- 300 kids per week are treated for skateboard injuries in North America, most of which are relatively minor.

National Safety Council Fact Sheet Library

- According to the CPSC, more than 15,600 persons need hospital emergency room treatment each year for injuries related to skateboarding.
- Irregular riding surfaces account for more than half of the skateboarding injuries caused by falls.
- Wrist injury is the number one cause, usually a sprain or a fracture.
- Skateboarders who have been skating for less than a week
- suffered one-third of the injuries.
- When experienced riders suffered injuries, it was usually from falls that were caused by rocks and other irregularities in the riding surface.

4.8 Support Infrastructure

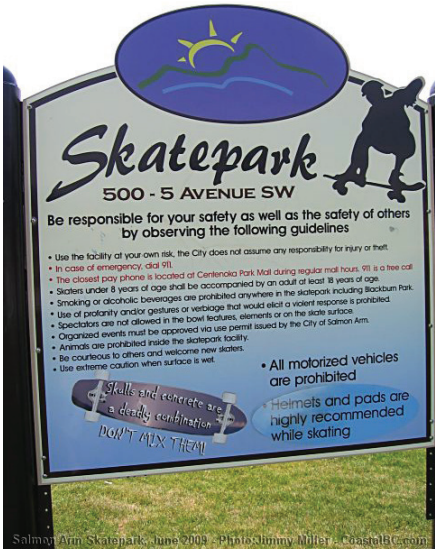
Within each skate park type, a certain level of support infrastructure is needed. Due to the number of users and the affect on the surrounding community, some of these will need to be handled within the site. Other items can use surrounding businesses, recreational facilities, or public buildings. All municipalities should provide these features as a bare minimum for each of these skate park facilities.

Feature:	Skate Spot	Neighborhood Skate Facility	Community Skate Facility	City-Wide Skate Facility
Trash Receptacles	X	X	X	X
Integrated or Stand Alone Benches	X	X	X	X
Drinking Fountains		X	X	X
Shade Structure/Trees	X	X	X	X
Picnic Table Area		X	X	X
Access to Storm water System		X	X	X
Portable/Adjacent Restrooms		X	X	X
Vending Machine		X	X	X
On-Site Restrooms			X	X
Full Concessions			X	X
Skate Shop/Merchandise				X
On-Street Parking		X	X	X
Off-Street Parking			X	X
Separate Access w/ Drop Off				X

Figure 4.3: **Support Infastructure Recommendations**

This infrastructure is only recommended. These elements will help to create a more successful site element.

4.9 Skate Park Rules



Salmon Arm Skatepark, June 2008 - Photo Jimmy Miller - CoastalBC.com

Below is a sampling of some skate park rules. The key is to be direct and simple.

- Skate at your own risk. This park is a non-supervised facility. Permitted equipment includes skateboards, inline skates, razors, and BMX freestyle bikes. Other equipment must be approved in writing by the Director of Parks and Recreation before use.
- Protective gear (helmets, knee pads, elbow pads & wrist pads) is strongly recommended.
- Alcohol, tobacco products, and drugs are prohibited.
- Inspect the park before using. Stay off when wet, icy or other hazardous conditions exist.
- Look before you go … don't drop in on others … wait your turn.
- Check bad behaviors at the gate including foul language, glass containers, tobacco & alcohol.
- What will close your park? Damages, graffiti and litter! Please report any acts of vandalism. Let Parks & Recreation Staff know if there is a problem. Take care of your park so it can remain open.

4.10 Hours of Operation and Lighting

Hours of Operation

The hours of operations for skate facilities will follow the City of Arlington's park classification system. For example, neighborhood parks (i.e. Cliff Nelson Park) are generally open from 5:00 a.m. to 10:00 p.m. and community parks (i.e. Vandergriff Park) are generally open from 5:00 a.m. to 12:00 a.m. So, usage of skate facilities will only be allowed during these normal park operating hours.

Lighting

A skate park with adequate lighting will allow use of the facility during the evening. During the winter this will help to attract older, working skateboarders who may otherwise not have recreational options. Depending on the intensity of the lights, even skate parks placed within residential zones can be lit until the park closes without any impact to the other park visitors or nearby residents.

Lights should be configured so that they do not abruptly turn off. Rather, they should turn off in stages with a few seconds in between to allow those skaters in the middle of a run to stop skating. It's easy to imagine the feeling of things going pitch black while one is in the middle of a difficult trick.

In some cases, the lights can be set on a 20-minute timer that is reset with a button so that the facility does not consume power when it's not being used.